

ABSTRACT

High yield ratio high-strength thin steel sheet  
superior in weldability and ductility characterized by;  
5 being comprised of steel containing, by mass%,  
C: over 0.030 to less than 0.10%, Si: 0.30 to 0.80%, Mn:  
1.7 to 3.2%, P: 0.001 to 0.02%, S: 0.0001 to 0.006%, Al:  
0.060% or less, N: 0.0001 to 0.0070%, containing further  
Ti: 0.01 to 0.055%, Nb: 0.012 to 0.055%, Mo: 0.07 to  
10 0.55%, B: 0.0005 to 0.0040%, and simultaneously  
statisfying  $1.1 \leq 14 \times \text{Ti}(\%) + 20 \times \text{Nb}(\%) + 3 \times \text{Mo}(\%) + 300 \times \text{B}(\%) \leq 3.7$ ,  
the balance comprised of iron and unavoidable impurities,  
and  
having a yield ratio of 0.64 to less than 0.92,  
15 a  $\text{TS} \times \text{El}$  of 3320 or more, an  $\text{YR} \times \text{TS} \times \text{El}^{1/2}$  of 2320 or more,  
and a maximum tensile strength (TS) of 780 MPa or more.

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